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March 1954 Vol. XIII No. 3 25c

CANADA

(SEE BACK COVER)

ALBANY, N.Y.
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Dear Doctor:

The month of March is named after this mild-mannered looking individual.

He is Mars, the Roman God of War.

In a world latent with strife and chilled by "cold wars," we are proud to announce that this issue of TIC magazine begins a series of covers and articles featuring "International Dentistry."

We are saluting the professional men of the great countries outside the United States. They, too, have a high regard for better dentistry and pride themselves on their contributions to the dental profession.

We believe you will enjoy this series. It will last until the end of 1954 and through it we will all gain new knowledge and understanding of dental problems, situations and ethics in the world of dentistry.

Sincerely,

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A MAGAZINE FOR DENTISTS, DENTAL ASSISTANTS, AND DENTAL HYGIENISTS

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CONTENTS

INTERNATIONAL DENTISTRY
Beginning another exclusive series of articles—International Dentistry 1

CROSSBITES AND STUDY CASTS
Every general practitioner will find it profitable to read this article 5

TAX DEDUCTIONS
Some $64 questions, and money-saving answers 7

FIX FOR LIVING
Beginning one of the most fascinating of adventure stories 8

TWO DISTINCT WORLDS
Every doctor and his lady will read this TIC feature with keen interest 11

ARTIFICIAL MOUTH
A newspaperman reports on U. S. Navy dental research ... 12

THE REMOVABLE PARTIAL DENTURE
The second installment on "Partial Denture Clasping." Don't miss it! 13

BEHIND THE IRON CURTAIN
Tic's roving European correspondent reports on what is going on in Bulgaria, Poland, Romania, Czechoslovakia 16

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EDITOR'S NOTE: TIC inaugurates in this issue another unique, exclusive series of articles – International Dentistry.

Through this unusual feature, TIC's foreign correspondents and cover artists will take you all over the world, reporting and painting the international dental scene in a dozen colorful countries.

Within this world-wide framework and through this nation-by-nation focus, we hope to bring you one of the outstanding events in dental literature in 1954.

Canadian Dentistry Through the Eye of a Needle

by Harry C. Peake, D.D.S., L.D.S., R.L.S.S.

Because of space limitations, it would have been impossible to mention in this article the names of all the outstanding men associated with the progress of dentistry in Canada. Rather than allude to only some of these dental leaders, it was thought best to omit all such references.

We are deeply grateful to the Canadian Dental Association, the deans of the Canadian dental colleges, and the Assistant Deputy Minister of Health for Newfoundland for their indispensable cooperation in providing material for this outline.—The Author.

The dental picture in Canada has been influenced by at least four factors: geography; the bilingualism of the country (French and English are both accepted as official languages); the location of dental teaching facilities; and the absence, until a few months ago, of Dominion Council Registration in two of the ten provinces.

Geographical conditions and the fact that Quebec is predominantly French are responsible for a large percentage of Canada's population being located in Ontario and Quebec, along with the largest universities with dental teaching facilities. Observation tends to show that where a man studies, there he will be likely to start practice.

The fourth factor, the lack of complete reciprocity between its ten provinces, has made it more difficult for dental graduates to move into the areas that are in need of dental services, but, thanks to the Canadian Dental Association, this problem has now been resolved.

Highlights of History

Here are some highlights, by provinces, of the history of Canadian dentistry:

ONTARIO: Modern Canadian dentistry stems from September 1902, when the Canadian Dental Association came into being. Actually, one could go back to 1868, when during the first session of the first Ontario Legislature, the Ontario Dental Law was passed. That statute created the Royal College of Dental Surgeons of Ontario, which is still the governing body of the province and which, until 1925, was also the teaching body. This historic legislation is considered to be the oldest continuously functioning dental act in the world. Under it, the first school of dentistry in Canada became a reality in 1875.

QUEBEC: Following closely on Ontario, Quebec passed legislation in 1869 which set up a board of examiners with the power to issue the degree of Licentiate of Dental Surgery.

In 1904 the Montreal branch of Laval University initiated a complete course for French-speaking students. In 1920 this branch of Laval became the University of Montreal, including the dental faculty.

In the same year, the medical faculty of McGill University began accepting English-speaking students in dentistry. In 1920 this offshoot of the medical college became a separate entity known as the Faculty of Dentistry.

MANITOBA: In 1883 the Dental Act of Manitoba was passed, and in 1889 all who had practiced for six months before its enactment were licensed. In 1912 the Winnipeg Dental Association was organized, and in 1914 the Annual Meeting of the Canadian Dental Association was held there. In 1922 the provincial association voted funds to the Red Cross to be used in setting up dental clinics.

Doorway to Progress: the headquarters of the Canadian Dental Association, Toronto.

1929 saw the establishment of a mouth health campaign, and $1,500 was granted by the Manitoba Association for educational purposes. Two years later the provincial board of health requested a dental representative to sit in on board meetings, and a survey of the dental needs of school children outside the city of Winnipeg was made. A school clinic was established in Winnipeg, and a traveling clinic was turned over to the Canadian Foundation for Preventive Dentistry.

BRITISH COLUMBIA: Canada's most western province passed its Dental Act in 1886. Dentists who had practiced in the province for the three months before were allowed to continue without further examinations.

In 1908 legislation created the College of Dental Surgeons. This body governs the practice of dentistry in the province. Since that time a winning fight has been waged against newspaper advertising, public demonstrations, "chain store" practices, "trade names,". . . technicians' illegal activities.

About 1942 the Public Health Department, becoming aware of need for a program of dental care for children, inaugurated a division of preventive dentistry. Today there are twenty-one clinics.

NEW BRUNSWICK: It was in 1890 that New Brunswick, one of the Maritime Provinces, passed its dental control act, the members of the profession having held a meeting the year before with this objective in view. Additional legislation in 1929 caused a lot of trouble. At that time there were some "assistant dentists" who were not graduates but were working under supervision. They were allowed to continue under the 1929 law, but caused so much confusion that new legislation had to be enacted in 1942. However, to get this new legislation on the statute books, it was necessary to license the "assistant dentists" who were already in practice.

The early history of dentistry in the Maritime Provinces was largely influenced by the close proximity of the United States. As early as 1850, itinerant "doctors" and "professors" provided dental treatment, but in 1891 both Nova Scotia and Prince Edward Island passed acts to control the practice of dentistry.

NOVA SCOTIA: In 1908 the Maritime Dental College was organized in Halifax, with four students in attendance. The college carried on in cooperation with the Halifax Medical College and Dalhousie University, a group of Halifax dentists giving the dental instruction. In 1912 the school was taken over by Dalhousie University. Most of the students are from the Maritime Provinces and the New England States.

In 1918 a research laboratory was opened, and in the same year arrangements were made to give lectures on dental hygiene to students of the Normal School at Truro. Thus, by instilling the needs for oral health in these embryo teachers a plan of education was instigated which has had splendid

BASIC STATISTICAL DATA REGARDING DENTAL PERSONNEL IN CANADA

Dentists

(as of January 1953)
Male, 5176
Female, 39
Total 5,215
Ratio to population 1/2686

Specialists

Dental Oral Surgeons, 33
(exodontists)
Orthodontists, 62
Periodontists, 21
Pedodontists, 13
Total, 129

Employed

Province Health Services:
Dental Schools, 62
Hospital Service, 56
School Dental Service, 127
Public Health Service, 44
Total, 289
Federal Departments:
Department of Veterans Affairs, 40
Department of National Defence, 150
Department of National Health & Welfare, 8
Total, 198

Students

(Undergraduates as of January 2, 1953)
Male, 699
Female, 20
Total, 719

Dalhousie University, 50
McGill University, 141
University of Montreal, 111
University of Toronto, 294
University of Alberta, 123

results. Later, these lectures were extended to public health personnel, and traveling clinics were sponsored by the Red Cross and the Nova Scotia Dental Association.

NEWFOUNDLAND: Canada's youngest province has been called the "cornerstone of the British Empire." It was discovered by John Cabot in 1497. So it is at one and the same time, Canada's newest and oldest member.

The dental history of Newfoundland has also been influenced by dentists who came from the United States, and came as early as 1870. In 1893 the first dental legislation was passed, setting up a board to control registration and practice.

In 1946, under the leadership of the present dean of the Dalhousie dental faculty, the profession formed an active dental society.

Twenty-four private practitioners are on the Island, with one full-time dentist at St. John's Mental Hospital. At Clarenville, a dentist provides free services, on a part-time basis, to children of school age, and at St. John's a public health dentist gives full-time services.

SASKATCHEWAN—ALBERTA

The provinces of Saskatchewan and Alberta are related geographically and, one might say, professionally, for their dental acts were both passed in 1906. Since these provinces were only brought into being the year before, when the North West Territories were divided, apparently no time was lost by the dental profession in getting organized. Of course, dentists had been practicing in the territories for twenty years or more before the formation of the two provinces, and these men had the privilege of registering as a mere formality.

SASKATCHEWAN: The first province in Canada to pass legislation allowing hygienists to practice was Saskatchewan.

In 1918 the first dental course in Western Canada was commenced at Edmonton, Alberta, in conjunction with the faculty of medicine. This was not a complete course, and until 1944, when the dental faculty was formed, students had to complete their courses at one of the eastern colleges.

Associations and Publications

At the present time each of the ten provinces has its own provincial association and local publications. The Canadian Dental Association addresses itself to Canada-wide dental problems and publishes the *Canadian Dental Journal.*

In conjunction with the provincial and Canadian Associations, there are groups which extend across the border—due to geographical and fraternal bonds which exist between Canada and the United States. As an example of this, the Pacific Coast Dental Congress—consisting of the eight western States of the United States and Alberta and British Columbia—meets every three years. There are also other regional associations which embrace areas in both countries situated along the border. Canada has given to the United States many of her outstanding dentists.

Dentistry in Canada is a young profession, and has all the "vim and vigor" associated with youth. Traveling clinics, both motor and railroad, reach out to the isolated areas, while school clinics, public health clinics, and educational programs assist persons in the densely populated localities to better oral health. Fluoridation has been put into effect in several municipalities and is a live issue from coast to coast.

Problems in Professional Education

Canada needs more teaching facilities, but Canada also needs more students. It has been claimed that the cost of higher education is responsible for a lack of entrants into the profession, but this seems doubtful. More probable is the fact that,

according to a recent survey, dental fees have advanced less than those of any other profession or any trade.

Many dentists believe that the problem to be faced is this: If dental-college registrations do not increase within the next few years in keeping with the increase in the population, Canada will have an acute shortage of dentists—a situation that could be avoided only by lowering entrance requirements (in the opinion of some dental authorities). Any dilution of entrance requirements would be a serious step, for Canadian teaching standards and requirements for registration under the various provincial dental acts are second to none.

As might be expected, the oral health conditions across Canada vary with local conditions, but with the exception of the centers where dental schools are located, the old adage "which came first, the chicken or the egg" might apply. Are some localities understaffed with dentists because the dentists won't leave the cities? Or is it because the wages or standards of education are too low to afford a living to the number of dentists required?

Ratio of Dentists to Population

Canada is not so well supplied with dentists as is the United States. According to the American Dental Association, the ratio of dentists to population in the United States is 1 to 1,691; in Canada it is 1 to 2,686. These figures vary locally, with the ratio highest in Ontario and the lowest in Newfoundland.

In the past there has been a shortage of dentists in the western provinces, but this is being overcome. This shortage was caused primarily by undergraduates who had to come east to complete their course, staying on in the east after graduation.

Of the 5,215 dentists registered in Canada, 1,388 are located in the four western provinces. The school at Edmonton is the only one west of Toronto; the other teaching centres are Halifax and Montreal.

A Fast-Growing Nation

With the population of Canada growing at the rate of 350,000 per year—and that likely to increase—an educational program to impress the value as well as the need for dental care is necessary.

Dentally speaking, Canada is in good condition at the present time. There is no shortage of laboratory technicians, and the assistants are not only well trained but rate a few wolf whistles as well. However, in a fast-growing country, a weather eye must be kept constantly cocked towards the future. As the population increases, more dentists, assistants, and laboratory technicians will be required.

Canada is a growing country, and Canadian dentistry is a growing profession. There's no digging of heads in sand, waiting for a bunt from advancing progress. Canada wishes to plan not only for next year and the next decade, but for the next century as well. Its interest in oral health is not isolated by its own borders. The Canadian Dental Association is a member of the International Dental Federation, which is affiliated with World Health Association—a United Nations organization.

Canadian dentistry is on the march!

ROYAL CANADIAN DENTAL CORPS

In 1915 the Canadian Army Dental Corps was authorized as a separate service within the Canadian Army Medical Corps. Prior to that time, there was no service to the armed forces on an organized basis. Following World War I, the Dental Corps was demobilized.

In 1939, the Canadian Dental Corps was organized and employed on a tri-service basis, although essentially an Army establishment. All three services, Army, Navy, and Air Force, received equal priority for dental treatment, at strategically located clinics.

As the need for service dentistry increased, additional dental companies were formed, until there were twenty-four in Canada. Dental detachments accompanied the various Task Forces to the theatres of war. A highly efficient mobile dental clinic was developed—the envy of dental corps serving with the other allied forces.

During the war the Corps grew to a strength of 1,562 officers and 3,725 men, many of whom received honors and awards for outstanding service.

After demobilization, a peacetime dental establishment was set up—for the first time in Canadian military history. The companies so formed provide treatment for all three services. In isolated areas, treatment is given to civilians employed by Government departments, on a repayment basis, where civilian dental facilities are unavailable.

In 1947, His Majesty the King granted the title of Royal to the C.D.C., which is now known as the Royal Canadian Dental Corps.

The R.C.D.C. is young in terms of service, but proud of its achievements and of its unique tri-service responsibilities.

Crossbites and Study Casts

by Frank H. McKevitt, D.D.S.

There can be little doubt that significant new studies will be added to dental curricula in the immediate future. The pressure and circumstances that create changes are at work.

The need for recognition of these newer factors calls for attention and decisive steps that demand their solution. But what of long-standing problems, also of a fundamental nature, that still remain unsolved? The answer requires some understanding of what has gone before, what exists now, and of what may occur in the future. To aid in this understanding is, in part, the purpose of this report. It represents an old idea, which, if adhered to, is intended to indicate a possible form for future expansion.

The preparation and adoption of such a precise plan by the general practitioner of dentistry is meant to elicit approval once it has been readopted. The plan is to make intensive use of the study cast, dentulous and edentulous. This plan will show the type of thinking that must be done if haphazard construction and great dissatisfaction are not to follow in the wake of certain types of prostheses.

As a plan it may give rise to intelligent discussion and bring forth suggested alternatives. If the time is ripe, as it seems to be now, it may result in future constructive action. No matter how much the final result may differ, the production of a definite order of study cast diagnosis, will be aided by the introduction of collateral ideas helpful to prosthodontics. Let us cite for the sake of discussion a few examples applicable to today's unsolved problems —which may be included in this report for emphasis. Usually diagnosis and prognosis of the disturbances of the temporo-mandibular joint are limited to roentgenograms. As a result of such limited diagnosis, operative procedures follow that include meniscusectomy, the injection of sclerosing fluids into the meniscus and even condylectomy, any and all of which are radical and unnecessary. A careful scrutiny of study casts that should automatically accompany the roentgenograms would reveal in the dentulous casts of these cases unfavorable planes of occlusion that induce temporo-mandibular disturbances. A glance would disclose a simple remedy or method for their simple correction when recognized. The same casts when made available would afford a means of recording the extant height of the interalveolar space or what we choose to, in common parlance, call the height of the bite or the vertical.

Dentulous casts will also reveal the typal alignment of the natural anterior teeth as an esthetic guide to their artificial rearrangement. They also reveal crossbite arrangements of the natural teeth which take an infinite variety of forms beginning with scissor bites in the median line and ending with the single crossing of the maxillary third molars. Edentulous casts will reveal a number of forms that lend themselves to easy recognition and classification of what had been natural crossbite relations. From continual study the operator will gain valuable knowledge and discover differences where less studious workers would see nothing but uniformity. The figures accompanying this article illustrate the points under discussion which are limited here to crossbite arrangements of the natural teeth that should be given similar arrangements when reproduced artificially.

At this point we can summarize the practical aspects of natural teeth with crossbite arrangements for comparison with natural teeth in normal arrangements and visualize the need for their continued anomalous arrangement in the artificial replacement which had followed their loss.

In natural crossbite dentures the width of the *mandibular* arch is greater than that of the *maxillary* arch. In the edentulous state atrophic changes increase the width of the latter and decrease the width of the former. In the normal natural state, the buccal cusps of the maxillary bicuspids and molars overjet the buccal cusps of the mandibular teeth in a reverse process. This overjet function in both normal and abnormal instances keeps the mucous membrane of the cheek from being engaged by the grinding molars.

When pre-existent crossbite arrangements of the natural teeth are given a normal alignment in the artificial setup, cheek biting follows inevitably. Another unpleasant sequel deprives the tongue of its normal space and the dentures are the more readily dislodged from their ridges.

In such cases where pre-extraction casts are not employed either as a record of the height of the interalveolar space or the typal alignment of the

Fig. 1: Lower left pre-extraction casts revealing unilateral crossbite arrangement of the natural teeth.

Cast of maxillae on the lower right shows normal arrangement of artificial teeth given to an original bilateral crossbite.

The casts on the upper clearly reveal, even though edentulous, the bilateral crossbite status of the original teeth which must be restored artificially.

Fig. 2: Mounted casts on lower left show unilateral ridge relations on right side and normal ridge relations on the left.

Restoration on the right shows a similar case crossed on the left and arranged normally on the right.

natural teeth, reconstruction processes are hampered by every form of difficulty that may be met with in ordinary dental practice. At times patients may be present with seven or eight unsuccessful cases seeking relief. That all these cases were not of crossbite origin is implied. It does, however, follow that the study cast is requisite in all denture cases, when and if available. A close scrutiny of many casts of natural crossbite cases will reveal an infinite variety of anomalous alignments of the natural teeth that will astonish the casual observer. These range from scissor bites to bilateral crossbites with various points of crossing.

Scissor bites begin to cross in the median line. The maxillary central and lateral incisors may overjet the mandibular central incisors on the one side while the mandibular-central and lateral incisors will underjet the maxillary incisors on the opposite side.

Unilateral crossbites are not uncommon and occur as exhibited in the casts on the lower left of Fig. 1. The casts on the lower right, Fig. 1, clearly demonstrate the point under discussion, particularly as it pertains to the use of study casts for diagnostic uses. The prosthetic piece employed was a partial denture. The teeth should have been set on the crest of the ridge which is the line of the greatest resistance from the maxilliary to the mandibular ridge crest. Instead the molars were set off the ridgecrests on both sides. The normal arrangement of the teeth thus contributed to cheek biting and all around unsuccessful prosthesis. The edentulous maxilliary and mandibular casts should reveal at a glance the original crossbite status of the case in the dentulous state and the silent appeal for its restoration.

Normal bite arrangements of the artificial teeth in these cases do not permit proper space for the tongue. It is conducive to cheek biting and a breaking down of the osseous supporting structures.

During the absence of pre-extraction casts when ordinary care has been used to determine the height of the interalveolar space and centric occlusion, the cases when mounted on the articulator will at times reveal an original deviation from the normal ridge relations. In the casts mounted on the lower left normal ridge relations can be recognized on the left side. On the right side of the same case the ridge relations are clearly abnormal and from this simple hint should suggest to the operator a crossbite setup on the right and a normal arrangement of the artificial teeth on the left. In the case on the right, the conditions were reversed. The normal ridge relations were on the right side and the abnormal crossbite relation was on the left and the artificial teeth were accordingly given a unilateral crossbite arrangement.

Tax Deductions

TRUE OR FALSE?

by Maurice J. Teitelbaum, D.D.S.

1. If you are on the staff of the local hospital and use your car to get "to work," then the expenses incurred in operating your vehicle are deductible.

FALSE—Commutation costs are not deductible.

2. If your accountant has made an error on your tax return, he is responsible for extra assessments.

FALSE—You are responsible for all the information that appears in your tax return when it bears your signature.

3. The cost of attending a dental meeting is deductible, but the cost of attending a post-graduate course is not considered a deductible item.

TRUE—Strangely enough, dental post-graduate courses are considered less closely related to "making money" than dental meetings.

4. If you sell paintings or jewelry at less than the original cost, you are entitled to deduct the loss.

FALSE—Capital losses on personal possessions are not deductible.

5. Malpractice and accident insurance are deductible items.

FALSE—Malpractice insurance is, but not accident or health insurance.

6. If you purchase a camera to be used for dental photography, you may allow for its depreciation.

TRUE—Although a camera is not essentially a piece of dental equipment, if used to increase income in the conducting of a practice it may be considered an item of depreciation.

7. If you are in service and your office is closed you cannot take off the depreciation of your idle dental equipment.

FALSE—Equipment does not have to be used to depreciate. Time is also an essential factor.

8. A dentist must keep records of his income.

TRUE—In a case before the higher courts a few years ago, a dentist claimed that his business was strictly "cash and carry" and that he kept no books or records. The court ruled that it was his responsibility to keep records and if not he could not disprove any assessments that the internal revenue department wished to level on him.

9. Entertainment is a deductible item if the persons entertained are patients or potential patients and if it is done with intent toward increasing practice income.

TRUE—But be sure you have the receipted bills or records of the expenses incurred. And do not deduct the money spent on yourself, it won't be allowed.

10. Magazines and periodicals and books purchased over the year that are not of a professional nature may be considered deductible items.

TRUE—Only if they are used in your waiting room for your patients.

COMES THE TIME

There's a dear, bygone assistant,
For whom my heart still yearns,
The one who used to fill out
My income tax returns.

Ethel Willis Hewitt

"See another dentist. I could fix all your teeth, but it would put me in a higher income tax bracket!"

IR FOR LIVING

Dentist William B. Treutle—Motion Picture Producer

by Joseph George Strack

PART I

The first of a series of three articles

This is the story of a man who faced, all in a single, terrifying, rapidly developing crisis, such fundamental problems as deep-seated unhappiness. critical sickness, and, possibly, death in a matter of months; but who, through one of the most incredible series of adventures, gained happiness, artistic success, robust health, and a new life and future to boot.

It is the saga of a dentist who, forced by a serious illness to give up his profession, made the astounding decision to go to Africa and film a new kind of documentary motion picture—although he had not, up until that time, even held a camera in his hand.

This is the fantastic tale of Doctor William B. Treutle, whose film, "Karamoja!," was being spoken of as a classic by Hollywood veterans even before its release. Doctor Treutle will probably go on to other unique triumphs in motion pictures, but it is doubtful that he will ever make a film with more dramatic punch than his own life as he has lived it in the last two years.

Consider, if you will, these simple, rugged facts: at thirty-seven, Bill Treutle, then practicing dentistry in Tacoma, Washington, was sick, overworked, and despondent. His physicians told him bluntly that his heart impairment was such that, unless he stopped practicing dentistry immediately and changed his environment completely, he would not live six months.

Facing these facts, Bill Treutle did a number of extraordinary things; in turn, many remarkable things happened to him. For example, in little more than a year the following events, among others, occurred:

He sold his share of a joint dental practice, and turned his back on dentistry, the only means of livelihood he had known since his graduation from the Dental School of the University in Oregon in 1941.

Without any knowledge of motion picture production, he chose film-making as his new profession, and decided to produce a new kind of authentic documentary film.

He met a pretty American girl in the Belgian Congo and married her.

He and his bride lived for six weeks with a tribe of blood-and-beer drinking descendants of the Hamites who had migrated from the Holy Lands.

An amateur with a rifle, he shot down a charging, enraged buffalo just twenty feet away from him and his wife.

He suffered the pins-and-needles experience of watching a leopard come up behind Mrs. Treutle and begin to drink water from the improvised jungle bathtub she had just vacated.

Pygmies shot poison arrows at the Treutles in the Ituri Forest, but missed.

One of the fierce Leopard Men of the Belgian Congo spat in Treutle's face.

The Treutles, accustomed to being served their meals in dining rooms and restaurants, had to hunt for their food in Africa daily. This they did, without experience and without guides or gun bearers.

Having a Zenith transoceanic radio with them, they heard, in the heart of Africa, a London broadcast reporting the death of King George VI of England, news which they spread in that part of the world.

Fifteen months after he had been told of his critical, perhaps fatal, health condition, Bill Treutle passed all rigid examinations for life insurance in the United States.

His decision to go to Africa was no sudden whim. That continent has fascinated Bill Treutle ever since his boyhood: this was the mysterious, glamorous, dangerous land of King Solomon's mines, of the legendary Queen of Sheba, of Empire Builder Cecil Rhodes, of the lost Mountains of the Moon, the volcanic Abode of the Devils, of people who live today as their ancestors lived thousands of years before the days of Christ.

His service in World War II made it possible to feed this interest with visits to Africa and, as destiny would have it, to represent a solution to the problem of a complete change of environment posed by the serious health situation that was to arise later. He had been in the Coast Guard during the early stages of service in the armed forces, but later transferred to the Public Health Service, which brought him to the Mediterranean Theatre. Official missions sent him to North Africa several times. When he got his first week's leave in the PHS, he spent all seven days, most of it on camelback, in the great Sahara Desert, which is millions of square miles of wasteland, of shifting sand and gravel, of rock, and of mountain ranges. Ever since that experience he has read every word he possibly could about the continent.

A Karamoja elder (ruler). Note his metal lip plug. The chain around his neck was made in the Lobor Mountains by the blacksmiths of the tribe. Each link is hand forged, primitive style, with only rocks as implements.

When, some seven years later, he had to choose a radically different environment, he decided upon Africa without hesitation. Furthermore, he knew what he would do there: live with a truly primitive African tribe and make an authentic film report of its tribal life—the life of a world in which time has stood still.

He Meets James Wong Howe

That was why Bill Treutle, certain of nothing but uncertainty itself, sold his Tacoma dental practice and bought a jeep station wagon from his old friend Max Krauss in Tacoma. ("You never saw anyone so amazed and thrilled as Max when we drove the old jeep into his shop upon our return from Africa," says Mrs. Treutle. "Max had thought he would never see Bill—he was that sick—once he drove out of Tacoma with that jeep.")

Doctor Treutle transformed that station wagon into a unique home-on-wheels. Removing the back seats, he built in a bed, installed an auxiliary gas tank, put in a water tank, added an altimeter, screened the side windows, and hung shades.

He bought a Bolex 16 mm. camera, 10,000 feet of 16 mm. color film, and a Minitape recorder, the only self-contained, battery-operated, tape sound recorder then in existence.

Up until that time he had not even held a motion picture camera in his hand. But destiny seemed to favor this tall, handsome, boyish-faced, pleasant-mannered chap. He went to Los Angeles, where he was to board a freighter that would take him to a new life of adventure and health, or failure and death. There he met one of the greatest motion picture camermen of our time, the brilliant James Wong Howe.

In three precious, brief meetings with the sympathetic Howe, the ailing, desperate Treutle pathetically hung onto every word of advice and information offered by the ace photographer. Then, with the sole experience of shooting three hundred feet of film and a few hours of instruction on how to operate his movie camera and how to employ some basic principles of good photography, Bill Treutle, weary, anxious, and nervous, struggled up the gangplank of a freighter, carrying all his worldly goods with him.

His older brother, Fritz Treutle of Wichita, Kansas, anxious about him, accompanied him on the freighter, bound for Capetown.

All through the long ocean voyage Bill Treutle recalled, and repeated to himself, every sentence, every word, that Howe had spoken, until all of it burned indelibly in his mind. He thought about it day and night, as if it were a magic formula to save his life. It was, for, without being aware of what was happening, he was putting aside all other thoughts, thoughts of his health, of his future. He lived only for the motion picture he was to make. He allowed himself to think, feel, and to dream of nothing else. From now on, he told himself, this was to be the format of his life—or what remained of it.

The sea, too, is good for the soul. One's troubles, however multitudinous and serious they may be, dwindle and vanish against the limitless expanse that is the ocean and the eternity that is the sky. Every man who has looked into the night at sea has learned something about inner peace, about

man's place in the universe, about the boundless concepts of God. "I did not know it then, but I was already on the way back to health," Bill Treutle says.

Married in Africa

Nor could he have known that, once again, destiny was to favor him a short time later when, at Stanleyville, in the Belgian Congo, he was to meet Eleanore Claff, a petite, pretty young woman, who, believe it or not, happened to come out of a plane he was watching, happened to be an executive of Paramount Pictures, and happened to be a girl with such an attractive personality that she was nicknamed "Happy"!

As luck would have it, one Sunday Bill and Fritz were at the field of Sabena Airline Company watching a plane from Brussels land. On that plane were two Americans: a clergyman from Minnesota and "Happy" Claff. The four Americans were so delighted to meet each other in Africa that the quartet had lunch together.

Mrs. William B. Treutle ("Small Fry") standing by sign warning of sleeping sickness; in English at top, in Swahili below. The "highway," in upper left, barely wide enough for the Treutle jeep station wagon.

Bill Treutle was most interested to learn that the attractive American girl was a Paramount motion picture executive, that she had started her career as set-secretary to Cecil B. deMille, and that she had come to Africa to look for locations for two films and later to manage the unit that would do the shooting of the films.

Miss Claff naturally became interested in Bill Treutle's motion picture plans, although she was startled—to say the least— to learn that his total experience consisted of shooting three hundred feet of film. She herself knew little about the techniques of photography; was, in fact, a rather poor amateur photographer, but she knew enough about motion picture production to know that no movie company would attempt, even with a large camera crew and many cameras, what this on-fire novice intended to do alone with only one camera. His enthusiasm became contagious, however, and his courage stimulating. Gradually they began to talk about his film as a real possibility. And, inevitably, they spoke about themselves—and their future together.

When they decided to marry, they were shocked to learn that it was necessary to post bans for ten months! Mrs. Treutle says, "Needless to say, we drove like mad to Uganda, where bans must be posted only fifteen days—and where a license can be obtained in twenty-four hours in an emergency. One existed. Fritz was leaving for home at once, and Bill and I planned to commence our safari immediately. Bill got the license, at a cost of five pounds."

He still teases her about the license fee, complaining that he got "gypped." "After all, Small Fry," he tells her, "you are no bigger than a Pygmie woman, and Pygmie women are free in Africa. Yet I had to pay five pounds for you." (A postscript comment from Small Fry: "All other women in Africa cost at least five spears or two goats.")

They were married by the British Protectorate Agent in his office, and Fritz Treutle left for home, confident that Bill had found in "Happy" the medicine that was best for him.

She had wondered what Bill Treutle would do about getting a wedding ring. That imaginative, resourceful chap came up with the oddest wedding band a bride ever received—a hair from an elephant's tail held together by a speck of gold! Later, to make sure that the ring would last a lifetime, he encased all of the hair in gold, so that it "looks like a thin band of black between two bands of gold." Then he made a pair of earrings to match. Says Mrs. Treutle proudly, "No other woman in the world has a ring and earrings like these. Other dentists and jewelers who have studied the ring cannot understand how Bill achieved the results he did without burning the elephant hair when he soldered. But that is our secret!"

They traveled thousands of miles in the Dark Continent in their jeep station wagon looking for a primitive tribe untouched by any influence of modern civilization, a people still living in the Iron and Bronze Ages, as it were. They found such a tribe in the Karamaja District in the Northern province of Uganda, British East Africa, a British protectorate just above the Equator and west of Lake Rudolph. Bill Treutle was excited with the fervor of a man whose instincts tell him that destiny has tapped him for a big role.

NEXT MONTH—PART II

Dental Wives:

by Kay Lipke

What place should a dental wife have in the professional life of her husband?

"None!" was the instant retort of a dental friend, as he and his wife relaxed by our fire one wintry evening. He smiled as he said it, but he definitely was not joking. He added:

"I have never wanted our home life mixed up with my profession. When I leave the office, I want to step into a separate and distinct world, and leave dentistry behind me until the next day. I don't want to talk about the office at home, or try to handle home problems in the office."

His wife agreed. "I don't know anything about the office, Tom's patients, or his professional problems. When he comes home tired at night, I know he has had a difficult day and try to be as helpful as I can, but I don't ask questions, and he does not tell me about his work."

This dentist's attractive bungalow office is just two short blocks from their home, in a suburban section of one of the Nation's largest cities. His wife passes the office every time she walks to the neighboring shopping center, or when she drives anywhere in her car. Yet she never steps inside the door except by definite appointment.

It is always interesting to listen to dentists and their wives express their opinions about the relation they have worked out between the office and the home. A great many dental couples work together in the office as a team. Other dentists only call on their wives occasionally when they are temporarily without a regular dental assistant. Still others do not want their wives in the office at all, but like to have them interested enough in dentistry to be able to listen intelligently when their husbands come home at night, their minds still lingering with the day's dentistry and the day's patients. While many dentists like to keep the office and the home completely separate, like the dentist who, with his wife, is the subject of this article, they prefer to to have their home lives and their professional careers divided into two distinct worlds.

"That is one thing I like about having my office close to our home," the dentist explained. "The two blocks I walk to work are enough for me mentally to leave home behind me and prepare myself for the day's dentistry. In the same way, by the time I have walked home at night, I have forgotten dentistry and am ready for the evening's activities." He grinned. "Then, too, I like to go home for lunch."

His wife laughed. "The first time he walked in at noon, after he had started practicing in the neighborhood, I thought something was the matter. There wasn't a thing in the house for lunch. I had completely forgotten that he would be home."

Although this dentist, with a fellow dentist, built a bungalow office close to his home, the two men kept their patients from other parts of the city when they moved, and do not actually depend on the neighborhood in which they are located.

"A neighborhood office is really a challenge," he explained. "The competition is terrific. Not only are there a lot of dental offices located nearby, but at least one member of all the families living in the neighborhood is employed down in the center of the city, and is in the habit of going to a downtown dentist. The wife, on the other hand, likes to have her dentistry done close to their home.

"It is up to the neighborhood dentist to deliver the goods all the time. In my opinion, his sincerity in his work is the thing which does the trick. Patients, as a rule, don't know good dentistry from bad, but if they have faith in the dentist, and his work stands up, they will tell their friends and win over the other members of the family."

"Doesn't it help when a wife makes friends in the neighborhood?"

The dentist shook his head. "I would much rather not mix friendship with dentistry. If friends come to the office, well and good, but I don't feel that a dentist is helped too much by the people his wife meets in her social or neighborhood activities. After all, it is the dentist who has to deliver the goods, and if his wife takes care of the home and brings up the children she has done a fine job, and all that should be expected of her."

"Do you agree with all this?" we asked his wife, who had sat peacefully relaxed while her husband talked.

"I agree heartily," she smiled. The dentist glanced at his watch, and the two of them rose to their feet. A pleasant evening was over.

A NEWSPAPERMAN LOOKS AT DENTISTRY:

U. S. Navy Dental Research: Artificial Mouth

by Dick LaCoste

(Photos by U. S. Navy)

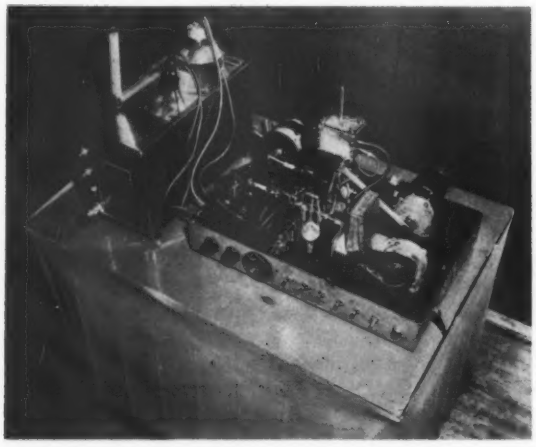
Dentists and dental technicians long have squirmed before their television sets as white-jacketed, alleged professionals spouted on tooth-paste programs such slush as "anti-enzyme" action and other almost meaningless phrases.

The fact that the laymen-announcers are merely mouthing the polished professional pap of admen gripes dentists no less for all that.

One segment of the profession, however, holds that almost any type of dental advertising for laymen benefits the populace. Maybe so. In the final analysis, perhaps it is true that what is good for the populace also is good for the dental profession and for the dental industry.

But if the announcers spout glowing phrases about dental products, researchers, dental scientists, and dental technicians well may prove them right. And in the near future, too.

Recently, an artificial mouth was developed by the U.S. Navy that may enable dental scientists to learn just what causes dental caries.



This small metal-bound box with transparent walls is the "mouth," and contains the teeth (three cavity-free molars). It is mounted on a pencil-sized metal post which rocks back and forth like a metronome. Flexible rubber tubes lead into it and feed saline solution into the pulp chambers of the teeth, mounted inside, and saliva fluids into the space around them. A small bellows simulates breathing by changing the air in the chamber completely every 40 seconds. With temperature kept at a constant body temperature, and the rocking motions to simulate chewing, the stage is set.

Inventor B. A. Yocke, Navy dental technician, whose curiosity led to the invention of the experimental, mechanical mouth, is explaining his "machine" to Captain L. H. Daniel.

The device is the result of the curiosity of a dental technician at the Dental Research Facility, Great Lakes Naval Training Center.

With typical scientific interest, Dentalman Bernard A. Yocke became intrigued with creating artificial tooth cavities. In January 1953 he began experimenting with extracted teeth, lab spare parts, and discarded equipment.

By April, he had made such progress with a crude machine he had developed that he aroused the interest of several of the most respected dental scientists in the Nation.

Official sanction to tinker some more with his machine was given to Yocke.

Although still in the formative stage, his machine attracted national attention at the American Dental Association meeting in Cleveland last fall.

Basically, the machine reproduces as closely as possible conditions in a living human mouth. When this is accomplished, the conditions can be varied, singly or in combination.

For practical study, scientists then can reverse their thinking. By applying the principles learned, they can warn patients of dietary deficiencies or personal habits that lead to tooth decay.

Already, dental researchers have produced artificially a fairly typical enamel lesion. With the apparatus, they believe they can produce true dental lesions.

When this is accomplished, dental scientists may prove what television "dentists" have claimed all along.

Strange world, this scientific one!

Part IX

The Removable Partial Denture

Partial Denture Clasping

The second of a series of three articles on this subject

by Joseph Murray, D.D.S.

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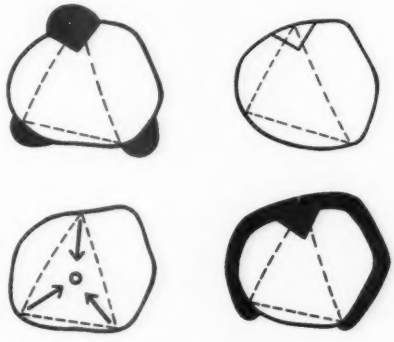
Doctor Louis Blatterfein feels that an understanding of the basic functions of a clasp, namely primary retention and lateral force transmission, is essential to the proper design of its components in partial denture construction.

Primary retention, obtained by the flexible third of the clasp arm, may be accomplished by:

Active spring tension against a parallel-sided or undercut tooth surface.

Passive placement against an undercut tooth surface.



Partial Dental Engineering

Either method will resist vertical dislodgment. However, intraclasp arm and interclasp equilibrium can rarely be obtained by spring tension, whereas passive contact is simple and safe.

Lateral force transmission, the second function of the clasp retainer, is effected by placing the rigid third of its arm against a nonundercut tooth surface. Sometimes, supplementary measures like multiple clasping, fixed splints, and stress-breakers are necessary if the supporting structure of an abutment tooth is unfavorable.

To counteract forces resulting from these functional contacts, thereby avoiding tooth movement, Doctor Blatterfein suggests that a clasp arm:

Encompass more than 180 degrees of the tooth circumference (horizontal reciprocation).

Be placed on equal vertical levels as close to the gingivae as possible (vertical reciprocation).

Moreover, when ideal clasp design is not feasible because of unfavorable tooth contour or position, atypical clasping procedures embodying the basic functions of primary retention and lateral force transmission are necessary.

Three Atypical Survey Lines

He points out that such clasp designs are dictated by three characteristic atypical survey lines, arbitrarily typed as A, B, and C.

For the description of an atypical survey line, the buccal or lingual surface on which it occurs may be divided into the near zone (that half nearest to the edentulous area) and the far zone (that half away from the edentulous area).

Atypical Type A Survey Line: Here the survey line is too high (occlusal) in the near zone and too low (gingival) in the far zone as compared to the typical guide line.

For retention, the flexible segment is placed in the undercut of the near zone. For its connection to the main part of the partial denture, three directions of attachment are available:

Near direction resulting in a reverse loop clasp arm.

Far direction resulting in a reverse attachment clasp arm.

Gingival direction resulting in a bar clasp arm.

Atypical Type B Survey Line: This survey line is too high (occlusal) in the near and far zones as compared to the typical survey line.

In this case, esthetics and the health of the abutment tooth periodontum, control clasp design.

Should the esthetics be unimportant, and the periodontum good, then the typical circumferential clasp may be designed at a high level.

If esthetics is of vital importance, and the periodontum is good, semirigid and flexible thirds of the circumferential clasp arm may be eliminated on the buccal or labial surface.

Should the periodontum be weak, ideal contour must be established on the abutment tooth by operative procedure (grinding or restoration) to permit typical clasp arm design at the lowest possible vertical level.

Atypical Type C Survey Line: In this instance the survey line is at the gingival margin in both the near and far zones, and primary retention may be obtained by undercuts on the distobuccogingival and distolinguogingival corners of adjacent teeth, and the far and near proximal surfaces.

Should the distobuccogingival or the distolinguogingival corner of an adjacent tooth be used, then the typical circumferential retainer arm is extended from the abutment to the undercut corner of the adjacent tooth, resulting in an extension clasp arm.

Directions of Attachments

If the far proximal surface is utilized, one or two points of contact may be established by the flexible segment or segments, depending on the space available. Two directions of attachment are available in this situation, near direction and gingival direction.

Near direction, resulting in full buccal and lingual arms, with far proximal surface extensions if two flexible segments are used, or a full buccal or lingual arm, with a far proximal surface contact, and only a rigid third on the opposite surface if one flexible segment is utilized.

Gingival direction, resulting in one or two bar clasp arms according to the number of contacts with the flexible segment or segments. Rigid thirds are placed buccally and lingually to provide lateral force transmission.

Should the near proximal surface be utilized, then the clasp body, attached occlusal rest, and connecting upright are moved to the far proximal surface. One or two contacts of a flexible segment or segments may be used.

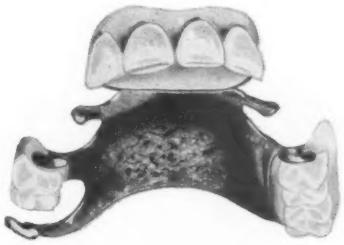
Two directions of attachment for the preferred contact are for direction and gingival direction.

Far direction, resulting in a reverse attachment clasp, with near proximal extensions if two flexible segments are utilized, or a reverse attachment buccal or lingual arm, with a full near proximal surface contact, and only a rigid third on the opposite surface, with the use of one flexible segment.

Gingival direction, resulting in one or two bar clasp arms, depending on the number of flexible segment contacts used. For lateral force transmission, rigid thirds are placed buccally and lingually.

Doctor Blatterfein is confident that these procedures will permit proper clasp design regardless of the existence of typical or atypical conditions of tooth position and contour. Moreover, the rationale and principles underlying their use will be an aid and guide in analyzing and evaluating any partial denture clasping system.

According to Doctor Ernest Matthews, the over-all design of a denture is vitally important, since clasp design, saddle design, and clasping axis are interrelated.



For example, a definitely skeletal design demands greater bracing action in the clasps than does a full palated one to prevent lateral wobble of the denture during mastication. Again, the bracing component of a clasp must be kept within reasonable limits when a weak tooth is involved.

A List of Considerations

He places great emphasis on the tilt of the model in surveying a case, since the tilt affects the position of the survey line and change in tilt is tantamount to altering the path of insertion of the denture. Accordingly, Doctor Matthews suggests that the following considerations determine the ultimate path of insertion:

An oblique path minimizes the tendency to a gravitational dropping of the upper, or a lifting of the lower denture.

With free end saddles, a posterior tilt of the

model provides a retentive undercut on the side of the clasped tooth adjacent to the saddle.

When all teeth supplied by a partial denture are anterior to the clasped abutments, an anterior tilt should be used.

When both posterior and anterior teeth are supplied, a posterior tilt should be used. Such a tilt permits the anterior teeth to be fitted without excessive interproximal spaces, and causes the survey line on the posterior teeth to be favorably placed to the use of a cast clasp (class or type I).

Basic Types of Clasps

Since three types of survey lines are to be found on a tooth's surface, an equal number of basic types of clasp have been devised:

Type I, cast clasp: forward action, corresponding to the #I survey line which is low on the occlusal rest side of the tooth and high on the opposite side, indicating retentive undercut only on the side opposite the rest.

Type II, Roach T clasp: corresponding to the #II survey line which is high on the occlusal rest side of the tooth and low on the opposite side, indicating retentive undercut only on the occlusal rest side.

Type III, round wire clasp: Gillette type, corresponding to the #III survey line, which is high on both the occlusal side of the tooth and on the opposite side, indicating retentive areas on both sides.

This type of survey line usually appears only on a tooth that is badly tilted in relation to the other teeth in the arch, and therefore presents a severe undercut condition.

Various combinations of these clasps are possible. For example, a cast lingual arm, type I, combined with a buccal type III arm, gives both bracing action and retentive value.

The Third and Concluding Article of Part IX Will Appear in April TIC

How To Catch A Salmon

Herman Semler Photo

Dr. Barney C. Bybee of Portland, Oregon, right, with the 47-pound, 5 ounce salmon that earned him second place in the Shinook, Washington, salmon derby recently. Witness to the catch, required by the salmon derby rules, is F. Farnsworth Luman of Vancouver, Washington. Doctor Bybee used a steel rod, a 54-pound Courtland line, a 5 ounce lead slip sinker, and a Spar pearl pink plug.

ANGLES AND IMPRESSIONS

Dental Thisa and Data

From the National Committee for a Free Europe and other intimate sources comes the following news from behind the Iron Curtain: *Bulgaria:* A decree by the Bulgarian Ministry of Health now requires all physicians and dentists to register their automobiles. The ministry will determine which doctors will be permitted to retain their private cars for professional use. . . . *Radio Sophia:* a professor at the Chernenkov Medical School claims numerous achievements: "Our stomatologic faculty has studied problems connected with the production of medicaments for dental diseases and prophlaxis, as well as dental prosthetic material. . . . One of the most important achievements . . . is the isolation of specific microbes found in the human mouth which, after being treated, have a curative effect similar to that of penicillin and the sulpha drugs on suppurative skin injuries. . . ." *Poland:* Newly instituted economy measures, limits to experimental research, and the cut in foreign trade have created a grave shortage of essential drugs. Aureomycin is scarce and is about $33 an ounce. Streptomycin is difficult to obtain and penicillin is not too plentiful. . . . *Romania:* Streptomycin is so scarce that it can only be prescribed for children in serious cases. However, there is an expansion of national production of many drugs never before produced in the country, such as aspirin, sulphanamides, vitamins, etc. Of the Russian-manufactured drugs available in Romania, novocain is reported to be particularly poor in quality. . . *Hungary:* Pharmaceutical industries are operating under full capacity and drugs are exported to Soviet Russia, China, and India. . . . *Czechoslovakia:* Penicillin is no longer imported. . . . Preparations in crystalline and ointment form are being made "in sufficient quantity to allow for export." The quality is claimed to be high, whereas in the other satellite countries the antibiotics are reported to be of an inferior quality.

Gagging

Doctor G. M. Crunchmolar, author of *Save Time and Save Money,* offers the following time-saving suggestions that we pass on to you as a public service.

(1) Install a revolving door in your office. This enables a patient to enter the moment a patient leaves. Avoid collisions and do away with the idle moments. Saves you an hour each day.

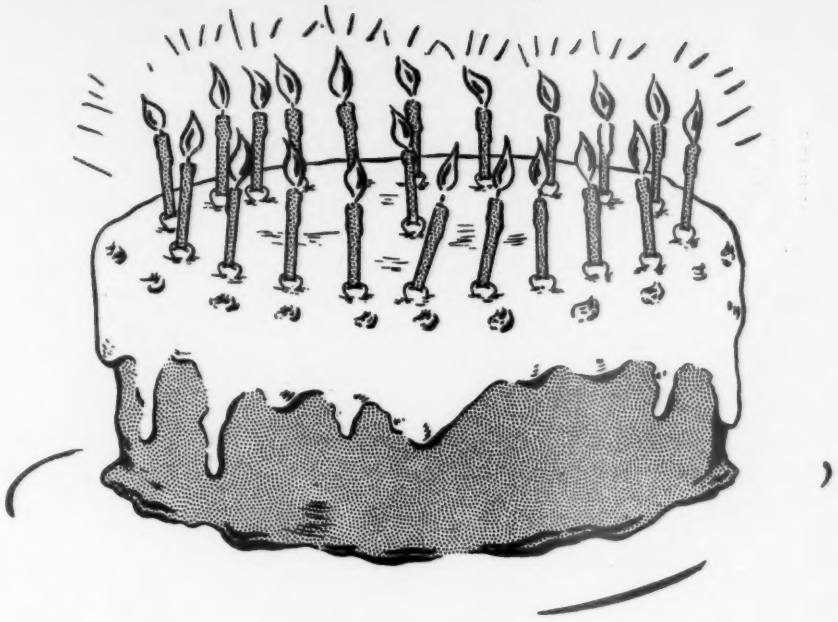
(2) Place a suggestion box in your waiting room for questions and complaints. If you do not take the time to answer your patients yourself, you can save yourself another hour. Your secretary can answer all queries by letter during her lunch hour. To make time, cut her lunch hour in half – from sixty minutes to ten minutes. If she complains, tell her your arithmetic isn't too good.

(3) Give all your patients a small envelope filled with pumice, so they can polish their own fillings at home. This will save you another hour, and the patient will save the price of toothpaste.

(4) Advise all patients with temporary stopping to chew one caramel ten minutes before returning for their next appointment. Another hour saved!

(5) Use paper towels, paper cups, paper saliva ejectors, paper tray covers, paper spoons, etc. The time saved in sterilizing will mean another hour.

(6) Make arrangements to have all your patients deposit the full fee at the bank in your account after the first visit. This will save an hour in the time it takes to hint at payments, open the vault to make change, count the daily take, and go to the bank.



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In the history of dentistry twenty years is not a long time. Yet in the life span of dental alloys it is almost total.

You, in looking back, often discover achievements long since forgotten. We, too, have been amazed at Ticonium's contributions to dental prosthetics. No, we are not patting ourselves on the back. Rather, we would like you to look back at past developments and also give you a peek into our future.

Ticonium is proud of its twenty years of FAMOUS FIRSTS:

First low-heat chrome alloy—pioneered electro-polishing—first full technique for stress-checker made in chrome—first successful mucostatic—introduced TRU-RUGAE—first chrome, melted electrically—first fine-grain chrome alloy—created Preview models—first low-heat technique—first chrome alloy to offer scrap return. Also, first to eliminate use of metal flasks in pre-heating cases—consistently produced castings with uniform physicals—first chrome alloy to use plaster-bound investments—first to use hydro-colloid duplicating materials—developed conditioning unit for hydrocolloid—published a top-notch dental publication—first low-heat alloy specifically developed for full dentures—first alloy used in "Oral Dynamics"—first low-heat manufacturer to produce precision castings—originated use of a wetting agent.

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e grain
loy-accuracy
lectro polished

Our cover this month is a highly imaginative one. It combines with rare simplicity the symbolic maple leaf and the insignia of the Canadian Dental Association. The interesting story of "Dentistry in Canada" is editorially presented in this issue. This is the first in a new international series depicting the history, development and present status of dentistry around the world. Look for additional beautiful covers and editorial coverage of "International Dentistry" in each forthcoming issue of TIC magazine.

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